WHAT IS CLAIMED IS:

1   1.   A document-generation process comprising:

2   parsing a raw document to create an internal representation of the document;

3   reading a first-level transform from a transform database;

4   applying the first-level transform to the internal representation so as to create a

5   first-level document;

6   writing the first-level document to cache;

7   receiving a first request for a second-level document that depends from the

8   first-level document;

9   in response to the first request, reading a second-level transform from the

10   transform database;

11   applying the second-level transform to the first-level document so as to create

12   a second-level document; and

13   writing the second-level document to cache.

1   2.   A document-generation process as defined in Claim 1, further

2   comprising:

3   revising the raw document;

4   applying the first-level transform to the revised raw document so as to create a

5   revised first-level document;

6   writing the revised first-level document to cache; and

7   indicating that a then-existing second-level document is invalid.

1   3.   A document-generation process as defined in Claim 2, further

2   comprising:

3   receiving a second request for the then-existing second-level document;

4   determining that the then-existing second-level document has been indicated

5   invalid;

6   applying the second-level transform to the revised first-level document so as

7   to create a revised second-level document; and

8   writing the revised second-level document to cache.

4.   A document-generation process as defined in Claim 1, further
       comprising:
receiving a request for a revised first-level transform;
revising the then-existing first-level transform;
applying the revised first-level transform to the raw document so as to create a
       revised first-level document;
writing the revised first-level document to cache; and
indicating that the then-existing second-level document is invalid.

5.   A document-generation process as defined in Claim 4, further
       comprising:
receiving a second request for the then-existing second-level document;
determining that the then-existing second-level document has been indicated
       invalid;
applying the second-level transform to the revised first-level document so as
       to create a revised second-level document; and
writing the revised second-level document to cache.

6.   A document-generation process as defined in Claim 1, wherein a
respective GID is assigned to each of the first-level document and the second-level
document.

7.   A document-generation process as defined in Claim 1, wherein the
first-level document and the second-level document are timestamped and wherein a
document is deleted when a timestamp indicates that the document is stale.

8.   A method of generating customized versions of a document, the
method comprising:
storing the document in raw form;
parsing the document to create an internal representation of the document; and
decomposing the document.

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1   9.   A method as defined in Claim 8, wherein decomposition of the
2   document comprises applying sequential transforms to the document.

1   10.   A method as defined in Claim 9, wherein decomposition of the
2   document comprises applying a first-level transform to the internal representation so
3   as to create a first-level document.

1   11.   A method as defined in Claim 10, wherein decomposition of the
2   document comprises applying a second-level transform to the first-level document so
3   as to create a second-level document.

1   12.   A method as defined in Claim 10, wherein decomposition of the
2   document comprises applying a third-level transform to the second level document so
3   as to create a third-level document.

1   13.   A method as defined in Claim 8, wherein the document is stored in raw
2   XML form.

1   14.   A method as defined in Claim 13, wherein decomposition of the
2   document comprises applying sequential transforms to the document.

1   15.   A method as defined in Claim 14, wherein decomposition of the
2   document stored in raw XML form comprises applying a subscription-level transform
3   to the internal representation of the document so as to create a subscription-level
4   document.

1   16.   A method as defined in Claim 1, wherein the subscription-level
2   transform enables content filtering of the internal representation in accordance with a
3   user's request.

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17.   A method as defined in Claim 16, wherein decomposition of the document comprises applying an organization-level transform to the subscription-level document so as to create an organization-level document.

18.   A method as defined in Claim 17, wherein the organization-level transform enables subscription-specific content filtering of a subscription-level document.

19.   A method as defined in Claim 18, wherein decomposition of the document comprises applying a presentation-level transform to the organization-level document so as to create a presentation-level document.

20.   A method as defined in Claim 19, wherein the presentation-level transform generates an organization-specific document for end user presentation.

21.   A method as defined in Claim 20, wherein the presentation-level transform generates an HTML document or a text file for end user presentation.

22.   A method as defined in Claim 21, wherein the subscription-level transform is mandatory and the organization-level and presentation-level transforms are optional.

23.   A method as defined in Claim 8, wherein a transform is applied to a document only as a result of an initial demand for a transformed document.

24.   A method as defined in Claim 23, wherein the demand for a transformed document is a client request.

25.   A method as defined in Claim 24, wherein the demand for a transformed document is a document publication process.

26.   A method as defined in Claim 23, wherein transformed documents are written to a cache.

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1   27.   A method as defined in Claim 26, wherein demands for a transformed

2 document, subsequent to the initial demand, are referred to the cache.

1   28.   A data document generated according to a process comprising:

2   storing a raw form of the document;

3   parsing the document to create an internal representation of the document; and

4   decomposing the document into a form requested by a recipient of the

5   document.

1   29.   A data document as defined in Claim 28, wherein decomposing the

2 document comprises applying a first-level transform to the internal representation of

3 the document so as to create a first-level document and applying a second-level

4 transform to the first-level document.

1   30.   A data document as defined in Claim 28, wherein the document is

2 stored in XML form.

1   31.   A data document as defined in Claim 30, wherein the document stored

2 in XML form is parsed by an XML parser to create the internal representation.

1   32.   A data document as defined in Claim 31, wherein the internal

2 representation level of the document is transformed to a subscription-level document

3 by applying a subscription-level transform to the internal representation.

1   33.   A data document as defined in Claim 32, wherein application of the

2 subscription level transform to the internal representation so as to create a

3 subscription-level document is required.

1   34.   A data document as defined in Claim 32, wherein the subscription-

2 level document is transformed into an organization-level document by applying an

3 organization-level transform to the subscription-level document.

35.   A data document as defined in Claim 34, wherein application of the organization-level transform to the subscription-level document so as to create an organization-level document is optional.

36.   A data document as defined in Claim 34, wherein the internal representation of the document is decomposed to a transform-level document only in response to a request for a transform-level document.

37.   A data document as defined in Claim 36, wherein transformed documents are written to a cache.

38.   A data document as defined in Claim 37, wherein an initial request for a transformed document causes decomposition of the internal representation into the form requested and wherein subsequent requests for a transformed document causes the transformed document to be retrieved from cache.

39.   A data document as defined in Claim 29, wherein the data document is generated according to a process comprising:
        tracking the dependencies of a transformed document; and
        regenerating the transformed document when any dependency related to the
            document changes.

40.   A data document as defined in Claim 39, wherein the document is generated according to a process comprising:
        designating a cached version of the document invalid when any dependency
            related to the document changes, and
        regenerating the transformed document in response to a request form the
            document that is made after the dependency change.

41.   A data document as defined in Claim 40, wherein the document is stored in XML form.

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1   42.   A data document as defined in Claim 39, wherein the document stored

2   in XML form is parsed by an XML parser to create the internal representation.

1   43.   A data document as defined in Claim 42, wherein the internal

2   representation level of the document is transformed to a subscription-level document

3   by applying a subscription-level transform to the internal representation.

1   44.   A data document as defined in Claim 43, wherein application of the

2   subscription level transform to the internal representation so as to create a

3   subscription-level document is required.

1   45.   A data document as defined in Claim 43, wherein the subscription-

2   level document is transformed into an organization-level document by applying an

3   organization-level transform to the subscription-level document.

1   46.   A data document as defined in Claim 45, wherein application of the

2   organization-level transform to the subscription-level document so as to create an

3   organization-level document is optional.

1   47.   A data document as defined in Claim 45, wherein the internal

2   representation of the document is decomposed to a transform-level document only in

3   response to a request for a transform-level document.

1   48.   A data document as defined in Claim 47, wherein transformed

2   documents are written to a cache.

1   49.   A system for generating customized documents, the system

2   comprising:

3   a primary database that includes a document table and a transform table;

4   a raw-data database accessible by the primary database;

5   a transform database accessible by the primary database; and

6   a cache coupled to the primary database and storing customized versions of

7   documents.

1   50.   A system for generating customized documents as defined in Claim 49,

2   wherein the raw-data database stores data documents in XML form.

1   51.   A system for generating customized documents as defined in Claim 49,

2   wherein the transform database stores XSL stylesheets.

1   52.   A system for generating documents as defined in Claim 49, wherein

2   the transform database stores Java classes.

1   53.   A method of generating customized versions of a document,

2   comprising:

3   storing the document in a primitive form;

4   transforming the document from primitive form into an internal representation

5   of the document;

6   transforming the internal representation into at least one subscription-level

7   document, into a DEFAULT organization-level document and into at

8   least one user-specific organization-level document;

9   transforming the DEFAULT organization-level document into at least one

10   presentation-level document; and

11   transforming the user-specific organization-level document into at least one

12   presentation-level document.

1   54.   A method of generating customized versions of documents as defined

2   in Claim 53, wherein the user-specific organization-level document is transformed

3   into at least two presentation-level documents.

1   55.   A method of generating customized versions of documents as defined

2   in Claim 54, wherein the user-specific organization-level document is transformed

3   into an HTML presentation-level document and into a FLAT presentation-level

4   transform.

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1   56.   A method of generating customized versions of a document as defined
2 in Claim 53, wherein:
3   (i)   the internal representation is transformed into a first subscription-level
4   document and into a second subscription-level document;
5   (ii)   the first subscription level document is transformed into a subscription-
6   level specific DEFAULT organization-level document and into at least
7   one user-specific organization-level document; and
8   (iii)   the second organization-level document is transformed into a
9   subscription-level-specific DEFAULT organization-level document.

1   57.   A method of generating customized versions of a document as defined
2 in Claim 56, wherein the document is stored in XML form.
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4   58.   A system for the generation of customized data documents, the system
5 comprising:
6   first database means for storing raw data documents;
7   first tabular means for storing document records;
8   an interface coupling the first database means to the first tabular means;
9   second database means for storing a compilation of transforms that enable an
10   internal representation of a document to be transformed into a first-
11   level document and that enable the first-level document to be
12   transformed into a second-level document;
13   second tabular means for storing transform records; and
14   an interface coupling the second database means to the second tabular means.

15   59.   A system as defined in Claim 58, further comprising:
16   a cache coupled to the first tabular means and to the second tabular means.

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17   60.   A system as defined in Claim 58, wherein the second database means

18 stores a compilation of transforms that enable:

19   transforming an internal representation into at lest one subscription-level

20   document, into a DEFAULT organization-level document and into at

21   least one user-specific organization-level document;

22   transforming the DEFAULT organization-level document into at least one

23   presentation-level document; and

24   transforming the user-specific organization-level document into at least one

25   presentation-level document.

26   61.   A system as defined in Claim 60, wherein the second database means

27 stores a compilation of transforms that enable:

28   (i)   the internal representation to be transformed into a first subscription-

29   level document and into a second subscription-level document;

30   (ii)   the first subscription level document to be transformed into a

31   subscription-level specific DEFAULT organization-level document

32   and into at least one user-specific organization-level document; and

33   (iii)   the second organization-level document to be transformed into a

34   subscription-level-specific DEFAULT organization-level document.

35   62.   A system as defined in Claim 61, further comprising:

36 a cache coupled to the first tabular means and to the second tabular means.

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